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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,677	08/07/2003	Yoshiharu Komatsu	Q76889	1774
23373	7590	03/20/2007	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			SHAN, APRIL YING	
			ART UNIT	PAPER NUMBER
			2135	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/20/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)
	10/635,677	KOMATSU, YOSHIHARU
Examiner	Art Unit	
April Y. Shan	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 August 2003.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-72 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-72 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 07 August 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 8/2003

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

1. Claims 1-72 have been examined.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Admitted Prior Art

3. Examiner is aware of admitted prior art on page 2, line 23 – page 3, line 2 of the specification of Japanese Patent Application laid open No. HEI10-49493.

Claim Objections

4. Claims 1-24 are objected to because of the following informalities:

- a. "Electric equipment" should be "An electric equipment";

Applicant is required to correct any informality the Applicant is aware of.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-72 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-72 are rejected under the second paragraph of 35 U.S.C. § 112, because the instant claims are generally narrative and indefinite, failing to conform with

current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

As per **claims 1-6**, “a section for associating the function limit with the device identification information of a prescribed external device to thereby obtain a cryptographic key” is recited. However, “the device identification information of a prescribed external device” lacks of antecedent basis. Further, “a determination section for determining whether or not the device...matches the device identification of the cryptographic key stored in the memory” is recited. In light of the Applicant’s specification on page 22, lines 5-14, the Applicant expressly discloses “**The device identification information is used as a cryptographic key...More specifically, the device identification that indicates a specific external device is previously stored...as a cryptographic key...**” However, “device identification of the cryptographic key” recited in claim 1 are two different entities, which is contradicted with the specification cited above and therefore, it is indefinite. In order to further examine the merits on the claims, examiner assumes “device identification information” and “cryptographic key” are the same entity.

As per **claims 25-30 and 49-54**, “a determining step for determining whether or not the device...matches the device identification information of the cryptographic key stored in the memory” is recited. In light of the Applicant’s specification on page 22, lines 5-14, the Applicant expressly discloses “**The device identification information is used as a cryptographic key...More specifically, the device identification that**

indicates a specific external device is previously stored...as a cryptographic key..." However, "device identification of the cryptographic key" recited in claim 1 are two different entities, which is contradicted with the specification cited above and therefore, it is indefinite. In order to further examine the merits on the claims, examiner assumes "device identification information" and "cryptographic key" are the same entity.

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-3, 5, 7-9, 11, 13-15, 17, 19-21, 23, 25-27, 29, 31-33, 35, 37-39, 41, 43-45, 47, 49-51, 53, 55-57, 59, 61-63, 65, 67-69 and 71 are rejected under 35 U.S.C.

103(a) as being unpatentable over Applicant's admitted prior art (Japanese Patent Application laid open No. HEI10-49493. Below rejection is based on English translation of the Japanese application provided by JPO) in view of Harada et al. (U.S. Patent No. 7,093,300)

As per **claims 1 and 25**, Admitted Prior Art '49493 discloses a method/equipment for preventing the unauthorized use of electric equipment including an interface to connect an external device thereto, comprising:

"...a computer and peripheral devices are provided with nonvolatile memories, respectively, for registering identification numbers. When one peripheral device is connected to the computer, the computer obtains a registration number from the connected peripheral device, and determines whether or not the registration number matches that of the computer. The computer allows a user the use of the peripheral device only when the two numbers match" (See Applicant's specification page 2, line 23 – page 3, line 2)

a first device identification information obtaining step for obtaining device identification information from an external device connected via the interface to the electric equipment to identify the device (See Applicant's specification page 2, line 23 – page 3, line 2 and Admitted Prior Art '49493, par. [0005]);

a second device identification information obtaining step for obtaining device identification information from an external device connected

via the interface to the electric equipment to identify the device (See Applicant's specification page 2, line 23 – page 3, line 2 and Admitted Prior Art '49493, par. [0005]);

a determining step for determining whether or not the device identification information obtained at the second device identification information obtaining step matches the device identification information of the cryptographic key stored in the memory (See Applicant's specification page 2, line 23 – page 3, line 2 and Admitted Prior Art '49493, par. [0005], [007]-[0008]);

Applicant's admitted prior art '49493 does not expressly disclose:

- a function limiting step for setting a function limit to the electric equipment so that at least part of functions of the electric equipment becomes unavailable,
- a step for associating the/each function limit with the device identification information obtained at the first device identification information obtaining step to thereby obtain a cryptographic key
- a step for storing the cryptographic key in a memory
- a limit canceling step for canceling the function limit set at the function limiting step when it is determined at the determining step that the information obtained at the second device identification information obtaining step matches the cryptographic key

Harada et al. discloses a function limiting step for setting a function limit to the electric equipment so that at least part of functions of the electric equipment becomes unavailable ("inoperable state setting means, in response to an output of the theft judging means, for, when the apparatus is judged as having been exposed to theft, putting the electronic apparatus into an inoperable state against theft in which a predetermined operation of a controlled circuit is disabled" – e.g. col. 2, lines 25-29); a step for associating the/each function limit with the device identification information obtained at the first device identification information obtaining step to thereby obtain a cryptographic key ("To cancel such an inoperable state against theft of the controlled circuit of the electronic apparatus, the individual code A22 individually assigned to the electronic apparatus and stored in the individual code memory M22 is used. The individual code A22 is calculated in accordance with a predetermined first relationship, so that the output code A221 is obtained. With regard to this first relationship: (a) the value of the output code A221 may be the same as that of the individual code A22; (b) the individual code A22 may be subjected to calculation in accordance with a predetermined equation to obtain an output code A221 having a different value from that of the individual code A22; or (c) an output code A221 having a different value from that of the individual code A22 may be obtained in accordance with a preset table or the like. The output code A221 obtained in this way is output from the output means embodied by indication means or the like" – e.g. col. 2, line 61 – col. 3, line 10. Please note output code A221 corresponds to Applicant's cryptographic key); a step for storing the cryptographic key in a memory ("a nonvolatile individual code memory M22 for

storing an individual code A22 individually assigned to the electronic apparatus" – e.g. col. 2, lines 30-32. Please note an individual code A22 corresponds to Applicant's cryptographic key); a limit canceling step for canceling the function limit set at the function limiting step when it is determined at the determining step that the information obtained at the second device identification information obtaining step matches the cryptographic key ("and inoperable state canceling means for, when it is judged by the individual code relationship judging means that the individual judgment code B2 and the individual code A22 have the predetermined second relationship, canceling the inoperable state against theft of the controlled circuit" – e.g. col. 2, lines 38 - 43).

Applicant's admitted prior art '49493 and Harada et al. are analogous art since they are from the same field of theft prevention of electronic apparatus.

It would have been obvious to a person with ordinary skill in the art to incorporate Harada et al.'s disclosed characters of method/system into Applicant's admitted prior art '49493.

The motivation of doing so would have been "to provide an electronic apparatus/method of canceling the inoperable state... caused to prevent theft, can be canceled at minimal effort and cost", as taught by Harada et al. (col. 2, lines 5-21)

As per **claims 7 and 31**, the combined teachings of Applicant's admitted prior art '49493 and Harada et al. disclose a method/electric equipment as applied above in claims 1 and 25. Applicant's admitted prior art '49493 further discloses comprising for

having the external device store information that uniquely identifies the external device as the device identification information after the first device identification information obtaining step when the external device connected to the electric equipment at the first device identification information obtaining step is capable of storing information (Applicant's admitted prior art '49493 – e.g. par. [0006]).

As per **claims 13 and 37**, the combined teachings of Applicant's admitted prior art '49493 and Harada et al. disclose a method/electric equipment as applied above in claims 1 and 25. Harada et al. further discloses resetting the function limit when a prescribed period of time has passed after the determining (Harada et al. - e.g. col. 11, lines 5-25).

As per **claims 19 and 43**, the combined teachings of Applicant's admitted prior art '49493 and Harada et al. disclose a method/electric equipment as applied above in claims 1 and 25. Applicant's admitted prior art '49493 - Harada et al. further discloses for having the external device store information that uniquely identifies the external device as the device identification information after the first device identification information obtaining step when the external device connected to the electric equipment at the first device identification information obtaining step is capable of storing information (Applicant's admitted prior art '49493 – e.g. par. [0006]); and a step for resetting the function limit when a prescribed period of time has passed after the determining (Harada et al. - e.g. col. 11, lines 5-25).

As per **claims 2-3, 5 and 26-27, 29** they are rejected using the same rationale as rejecting claims 1 and 25 above.

As per **claims 8-9, 11 and 32-33, 35**, they are rejected using the same rationale as rejecting claims 7 and 31 above.

As per **claims 14-15, 17 and 38-39, 41** they are rejected using the same rationale as rejecting claims 13 and 37 above.

As per **claims 20-21, 23 and 44-45, 47** they are rejected using the same rationale as rejecting claims 19 and 43 above.

As per **claims 49-51, 53, 55-57, 59, 61-63, 65, 67-69 and 71**, the combined teachings of Applicant's admitted prior art '49493 and Harada et al. disclose the claimed method of steps as applied above in claims 25-27, 29, 31-33, 35, 37-39, 41, 43-45 and 47. Therefore, the combined teachings of Applicant's admitted prior art '49493 and Harada et al. disclose the claimed program built into the electric equipment for carrying out the method of steps.

10. Claims 4, 6, 10, 12, 16, 18, 22, 24, 28, 30, 34, 36, 40, 42, 46, 48, 52, 54, 58, 60, 64, 66, 70 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art '49493- Harada et al. as applied to claims 1 and 25 above, and further in view of Bajikar (U.S. Pub. No. 2002/0194500).

As per **claims 4 and 28**, Admitted Prior Art '49493 discloses a method/equipment for preventing the unauthorized use of electric equipment including an interface to connect an external device thereto, comprising:

“...a computer and peripheral devices are provided with nonvolatile memories, respectively, for registering identification numbers. When one peripheral device is connected to the computer, the computer obtains a registration number from the connected peripheral device, and determines whether or not the registration number matches that of the computer. The computer allows a user the use of the peripheral device only when the two numbers match” (See Applicant’s specification page 2, line 23 – page 3, line 2)

a first device identification information obtaining step for obtaining device identification information from an external device connected via one of the interfaces to the electric equipment to identify the device (See Applicant’s specification page 2, line 23 – page 3, line 2 and Admitted Prior Art '49493, par. [0005] and drawing 1);

a second device identification information obtaining step for obtaining device identification information from an external device connected via one of the interfaces to the electric equipment to identify the device (See Applicant’s specification page 2, line 23 – page 3, line 2 and Admitted Prior Art '49493, par. [0005] and drawing 2);

Applicant’s admitted prior art '49493 does not expressly disclose:

- a function limiting step for setting a function limit to the electric equipment so that at least part of functions of the electric equipment becomes unavailable,
- a first connection route information generating step for generating first connection route information indicating which interface is used to connect the external device to the electric equipment at the first device identification information obtaining step
- a step for associating the/each function limit with a combination of prescribed device identification information and relevant connection route information to thereby obtain a cryptographic key
- a step for storing the cryptographic key in a memory
- a second connection route information generating step for generating second connection route information indicating which interface is used to connect the external device to the electric equipment at the second device identification information obtaining step
- a determining step for determining whether or not a combination of the device identification information obtained at the second device identification information obtaining step and the second connection route information matches the cryptographic key stored in the memory
- a limit canceling step for canceling the function limit set at the function limiting step when it is determined at the determining step that the combination of the obtained information and connection route information matches the cryptographic key

Harada et al. discloses a function limiting step for setting a function limit to the electric equipment so that at least part of functions of the electric equipment becomes unavailable ("inoperable state setting means, in response to an output of the theft judging means, for, when the apparatus is judged as having been exposed to theft, putting the electronic apparatus into an inoperable state against theft in which a predetermined operation of a controlled circuit is disabled" – e.g. col. 2, lines 25-29); a step for associating the/each function limit with the device identification information obtained at the first device identification information obtaining step to thereby obtain a cryptographic key ("To cancel such an inoperable state against theft of the controlled circuit of the electronic apparatus, the individual code A22 individually assigned to the electronic apparatus and stored in the individual code memory M22 is used. The individual code A22 is calculated in accordance with a predetermined first relationship, so that the output code A221 is obtained. With regard to this first relationship: (a) the value of the output code A221 may be the same as that of the individual code A22; (b) the individual code A22 may be subjected to calculation in accordance with a predetermined equation to obtain an output code A221 having a different value from that of the individual code A22; or (c) an output code A221 having a different value from that of the individual code A22 may be obtained in accordance with a preset table or the like. The output code A221 obtained in this way is output from the output means embodied by indication means or the like" – e.g. col. 2, line 61 – col. 3, line 10. Please note output code A221 corresponds to Applicant's cryptographic key); a step for storing the cryptographic key in a memory ("a nonvolatile individual code memory M22 for

storing an individual code A22 individually assigned to the electronic apparatus" – e.g. col. 2, lines 30-32. Please note an individual code A22 corresponds to Applicant's cryptographic key); a determining step for determining whether or not the device identification information obtained at the second device identification information obtaining step matches the device identification information of the cryptographic key stored in the memory ("individual code relationship judging means for judging whether the individual judgment code B2 input by the input means and the individual code A22 have a predetermined second relationship" – e.g. col. 2, lines 35-38); a limit canceling step for canceling the function limit set at the function limiting step when it is determined at the determining step that the information obtained at the second device identification information obtaining step matches the cryptographic key ("and inoperable state canceling means for, when it is judged by the individual code relationship judging means that the individual judgment code B2 and the individual code A22 have the predetermined second relationship, canceling the inoperable state against theft of the controlled circuit" – e.g. col. 2, lines 38 - 43).

Applicant's admitted prior art '49493 and Harada et al. are analogous art since they are from the same field of theft prevention of electronic apparatus.

It would have been obvious to a person with ordinary skill in the art to incorporate Harada et al.'s disclosed characters of method/system into Applicant's admitted prior art '49493.

The motivation of doing so would have been "to provide an electronic apparatus/method of canceling the inoperable state...caused to prevent theft, can be canceled at minimal effort and cost", as taught by Harada et al. (col. 2, lines 5-21)

The combined teachings of Applicant's admitted prior art '49493 and Harada et al. do not expressly disclose:

- a first connection route information generating step for generating first connection route information indicating which interface is used to connect the external device to the electric equipment at the first device identification information obtaining step
- a second connection route information generating step for generating second connection route information indicating which interface is used to connect the external device to the electric equipment at the second device identification information obtaining step
- combination of the obtained information and connection route information

Bajikar discloses a first connection route information generating step for generating first connection route information indicating which interface is used to connect the external device to the electric equipment at the first device identification information obtaining step and a second connection route information generating step for generating second connection route information indicating which interface is used to connect the external device to the electric equipment at the second device

identification information obtaining step and combination of the obtained information and connection route information (e.g. abstract, claims 1, 2 and 4. Please note Bajikar's a plurality of Bluetooth Access Points corresponds to Applicant's multiple interfaces)

It would have been obvious to a person with ordinary skill in the art to incorporate Bajikar's disclosed characters of method/system into Applicant's admitted prior art '49493 – Harada et al.

The motivation of doing so would have been to provide "a new type of asset security and wireless tracking system for electronic devices such as portable computers...to provide access control, tracking and security services of varying complexity without any additional hardware overheads", as taught by Bajikar par. [0007].

As per **claims 10 and 34**, the combined teachings of Applicant's admitted prior art '49493 - Harada et al. – Bajikar disclose a method/electric equipment as applied above in claims 4 and 28. Applicant's admitted prior art '49493 further discloses comprising for having the external device store information that uniquely identifies the external device as the device identification information after the first device identification information obtaining step when the external device connected to the electric equipment at the first device identification information obtaining step is capable of storing information (Applicant's admitted prior art '49493 – e.g. par. [0006]).

As per **claims 16 and 40**, the combined teachings of Applicant's admitted prior art '49493 - Harada et al. – Bajikar disclose a method/electric equipment as applied above in claims 4 and 28. Harada et al. further discloses resetting the function limit when a prescribed period of time has passed after the determining (Harada et al. - e.g. col. 11, lines 5-25).

As per **claims 22 and 46**, the combined teachings of Applicant's admitted prior art '49493 - Harada et al. – Bajikar disclose a method/electric equipment as applied above in claims 4 and 28. Applicant's admitted prior art '49493 - Harada et al. further discloses for having the external device store information that uniquely identifies the external device as the device identification information after the first device identification information obtaining step when the external device connected to the electric equipment at the first device identification information obtaining step is capable of storing information (Applicant's admitted prior art '49493– e.g. par. [0006]); and a step for resetting the function limit when a prescribed period of time has passed after the determining (Harada et al. - e.g. col. 11, lines 5-25).

As per **claims 6 and 30**, they are rejected using the same rationale as rejecting claims 4 and 28 above.

As per **claims 12 and 36**, they are rejected using the same rationale as rejecting claims 10 and 34 above.

As per **claims 18 and 42**, they are rejected using the same rationale as rejecting claims 16 and 40 above.

As per **claims 24 and 48**, they are rejected using the same rationale as rejecting claims 22 and 46 above.

As per **claims 52, 54, 58, 60, 64, 66, 70 and 72**, the combined teachings of Applicant's admitted prior art '49493 and Harada et al. and Bajikar disclose the claimed method of steps as applied above in claims 28, 30, 34, 36, 40, 42, 46 and 48. Therefore, the combined teachings of Applicant's admitted prior art '49493 and Harada and Bajikar et al. disclose the claimed program built into the electric equipment for carrying out the method of steps.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (See PTO-892)

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to April Y. Shan whose telephone number is (571) 270-1014. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AYS
15 March 2007
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